

This Listing of Claims will replace all prior versions, and listings, of claims in the application:

Listing of Claims:

1-6. (Canceled)

7. (Original) A method for displaying geographic roadway data, geographic track data, and geographic position data for a train, said method comprising:

- employing a geographic information system database;
- entering static roadway data in said geographic information system database;
- entering static track data in said geographic information system database;
- determining a track section occupied by said train;
- determining geographic starting and ending positions of said track section;
- displaying geographic information regarding said static roadway data and said static track data from said geographic information system database;
- determining geographic information regarding said track section occupied by said train from said geographic starting and ending positions of said track section and from said geographic information system database; and
- displaying said geographic information regarding said track section occupied by said train with said geographic information regarding said static roadway data and said static track data.

8. (Original) The method of Claim 7 further comprising:

- storing a starting longitude, a starting latitude, an ending longitude and an ending latitude for each of said track sections in another database; and
- determining geographic information regarding said track section occupied by said train from said starting longitude, said starting latitude, said ending longitude and said ending latitude of said track section occupied by said train and from said geographic information system database.

9. (Original) The method of Claim 8 further comprising:

- determining a plurality of nodes between a first node defined by said starting longitude and said starting latitude and a second node defined by said ending longitude and said ending latitude of said track section occupied by said train from said geographic information system database; and

displaying a plurality of lines between said nodes as said geographic information regarding said track section occupied by said train.

10. (Original) The method of Claim 7 further comprising:

entering said determined geographic information regarding said track section occupied by said train in said geographic information system database before said displaying said geographic information regarding said track section occupied by said train.

11. (Original) The method of Claim 7 further comprising:

determining another track section occupied by said train;
determining geographic starting and ending positions of said another track section;

determining geographic information regarding said another track section occupied by said train from said geographic starting and ending positions of said another track section and from said geographic information system database; and

displaying said geographic information regarding said another track section occupied by said train.

12. (Currently Amended) The method of Claim 11 further comprising:

responding to an event defined by said determining another track section occupied by said train; and

continuously displaying in about real-time said geographic information regarding said another track section occupied by said train.

13. (Original) The method of Claim 7 further comprising:

clearing another track section to be occupied by said train;
determining as a cleared track section said another track section;
determining geographic starting and ending positions of said cleared track section;

determining geographic information regarding said cleared track section from said geographic starting and ending positions of said cleared track section and from said geographic information system database; and

displaying said geographic information regarding said cleared track section with said displayed geographic information regarding said track section occupied by said train.

14. (Original) The method of Claim 13 further comprising:

displaying said geographic information regarding said track section occupied by said train in a first color; and

displaying said geographic information regarding said cleared track section in a second different color.

15. (Original) The method of Claim 13 further comprising:

planning a further track section to be occupied by said train;
determining as a planned track section said further track section to be occupied by said train;

determining geographic starting and ending positions of said planned track section;

determining geographic information regarding said planned track section from said geographic starting and ending positions of said planned track section and from said geographic information system database; and

displaying said geographic information regarding said planned track section with said displayed geographic information regarding said track section occupied by said train and with said displayed geographic information regarding said cleared track section.

16. (Original) The method of Claim 15 further comprising:

displaying said geographic information regarding said track section occupied by said train in a first color;

displaying said geographic information regarding said cleared track section in a second different color; and

displaying said geographic information regarding said planned track section in a third different color.

17. (Original) The method of Claim 7 further comprising:

including with said geographic information system database a roadway layer and a railroad layer;

entering said static roadway data in said roadway layer of said geographic information system database; and

entering said static track data in said railroad layer of said geographic information system database.

18. (Original) The method of Claim 17 further comprising:

including with said geographic information system database a train position layer; and

dynamically determining said geographic information regarding said track section occupied by said train; and

entering said dynamically determined geographic information in said train position layer of said geographic information system database.

19. (Original) The method of Claim 18 further comprising:

including with said geographic information system database at least one of a label layer and a landmark layer.

20. (Original) The method of Claim 18 further comprising:

determining when said train moves within a geographic area corresponding to said train position layer of said geographic information system database and responsively entering said dynamically determined geographic information in said train position layer of said geographic information system database.

21. (Original) The method of Claim 7 further comprising:

employing said static roadway data for a predetermined municipality.

22. (Original) The method of Claim 7 further comprising:

determining said track section occupied by said train from a computer aided dispatching system.

23. (Original) The method of Claim 7 further comprising:

determining said track section occupied by said train at a present time.

24. (Original) The method of Claim 23 further comprising

determining as a cleared track section another track section cleared to be occupied by said train at a future time; and

displaying geographic information regarding said cleared track section with said geographic information regarding said track section occupied by said train.

25. (Original) The method of Claim 24 further comprising

determining as a planned track section a further track section planned to be occupied by said train at another future time; and

displaying geographic information regarding said planned track section with said geographic information regarding said cleared track section and said geographic information regarding said track section occupied by said train.

26. (Original) The method of Claim 7 further comprising:

overlaying said displayed geographic information regarding said static roadway data and said static track data from said geographic information system database with said displayed geographic information regarding said track section occupied by said train.

27. (Original) The method of Claim 7 further comprising:

employing with said displayed geographic information regarding said static roadway data at least one of a map of roadways, and a plurality of representations of location identifiers.

28. (Original) The method of Claim 27 further comprising:

employing a plurality of names as said representations of location identifiers.

29. (Original) A geographic information system for displaying geographic roadway data, geographic track data, and geographic position data for a train, said geographic information system comprising:

a geographic information system database including static roadway data and static track data;

means for determining a track section occupied by said train;

means for determining geographic starting and ending positions of said track section;

means for displaying geographic information regarding said static roadway data and said static track data from said geographic information system database;

means for determining geographic information regarding said track section occupied by said train from said geographic starting and ending positions of said track section and from said geographic information system database; and

means for displaying said geographic information regarding said track section occupied by said train with said geographic information regarding said static roadway data and said static track data.

30. (Original) The system of Claim 29 wherein said means for determining a track section occupied by said train is a computer aided dispatching system; and wherein said means for determining geographic starting and ending positions of said track section includes a track infrastructure database.

31. (Original) The system of Claim 30 wherein said means for determining geographic starting and ending positions of said track section further includes a translation routine; wherein said track infrastructure database includes a plurality of records, with one of said records being associated with a corresponding one of said track sections, and further includes with each of said records a record identifier, an identifier of said corresponding one of said track sections, a starting latitude, a starting longitude, an ending latitude and an ending longitude; wherein said computer aided dispatching system sends a message including an

identifier of said track section to said translation routine; and wherein said translation routine responsively employs said identifier as a key to find one of said records in said track infrastructure database.

32. (Original) The system of Claim 31 wherein the static track data of said geographic information system database includes a plurality of representations of railroad tracks; wherein said means for displaying geographic information regarding said static roadway data and said static track data includes an image generator routine to display said static roadway data and said representations of railroad tracks; wherein said means for determining geographic information regarding said track section occupied by said train includes a train position routine, which receives from said translation routine said starting latitude, said starting longitude, said ending latitude and said ending longitude and responsively determines at least one of said representations of railroad tracks from said static track data of said geographic information system database; and wherein said means for displaying said geographic information regarding said track section occupied by said train displays a feature associated with said at least one of said representations of railroad tracks.

33. (Original) The system of Claim 32 wherein said geographic information system database includes a plurality of geographic information system maps associated with a plurality of corresponding geographic areas; and wherein said train position routine employs said starting latitude, said starting longitude, said ending latitude and said ending longitude to select one of said geographic information system maps on which to display said feature associated with said at least one of said representations of railroad tracks.

34. (Original) The system of Claim 33 wherein said means for displaying said geographic information regarding said track section occupied by said train includes a global communication network, a web browser and a display applet; and wherein said train position routine stores said feature in said geographic information system database and outputs a streaming vector corresponding to said feature over said global communication network to said display applet.

35. (Original) The system of Claim 34 wherein said display applet receives said streaming vector and displays a representation of said feature on a geographic information system map display.

36. (Original) The system of Claim 34 wherein said translation routine and said train position routine are part of a server; and wherein said web browser and said display applet are part of a client, which is interconnected with said server by said global communication network.

37-41. (Canceled)

42. (New) The method of Claim 7 further comprising:

- employing said track section as a first track section;
- employing said train as a first train;
- determining said first track section occupied by said first train and a second track section occupied by a second train from a computer aided dispatching system;
- determining geographic starting and ending positions of said first and second track sections;
- determining geographic information regarding said first track section occupied by said first train from said geographic starting and ending positions of said first track section and from said geographic information system database;
- determining geographic information regarding said second track section occupied by said second train from said geographic starting and ending positions of said second track section and from said geographic information system database; and
- displaying said geographic information regarding said first and second track sections occupied by said first and second trains, respectively, with said geographic information regarding said static roadway data and said static track data.